Main.java

Run

```java

public interface MyFirstInterface {
 int x = 10;
 void display();
}
public class InterfaceImplemented implements MyFirstInterface {

 @Override
 public void display() {

 System.out.println("Value of x inside the overridden method: " + x);
 }
 public static void main(String[] args) {
 InterfaceImplemented obj = new InterfaceImplemented();
 obj.display();
 }
}


```

Main.java

Run

```java
interface Speaker {
 void speak();
}
class Politician implements Speaker {
 @Override
 public void speak() {
 System.out.println("I am a politician and I am speaking.");
 }
}
class Priest implements Speaker {
 @Override
 public void speak() {
 System.out.println("I am a priest and I am speaking.");
 }
}
Output:
class Lecturer implements Speaker {
 @Override
 public void speak() {
 System.out.println("I am a lecturer and I am speaking.");
 }
}
public class Main {
 public static void main(String[] args) {
 Speaker politician = new Politician();
 politician.speak();
 Speaker priest = new Priest();
```

Main.java

Run

```
}
final class Student {
 final int marks = 100;
 final void display() {
 System.out.println("The marks of the student are: " + marks);
 }
}
class Undergraduate extends Student {

 public void getGrade() {
 System.out.println("The student's grade is: " + (marks / 100));
 }
}
```

Main.java

Run

```java
abstract class Shape {
 abstract void calculateArea();
 void display() {
 System.out.println("This is a shape.");
 }
}
class Circle extends Shape {
 private double radius;
 public Circle(double radius) {
 this.radius = radius;
 }
@Override
 void calculateArea() {
 double area = Math.PI * radius * radius;
 System.out.println("The area of the circle is: " + area);
 }
}
class Rectangle extends Shape {
 private double width;
 private double height;
 public Rectangle(double width, double height) {
 this.width = width;
 this.height = height;
 }
@Override
 void calculateArea() {
 double area = width * height;
 double area = width * height;
 System.out.println("The area of the rectangle is: " + area);
 }
}
public class Main {
 public static void main(String[] args) {
 Circle circle = new Circle(5);
 circle.calculateArea();
 Rectangle rectangle = new Rectangle(10, 20);
 rectangle.calculateArea();
 }
}
```